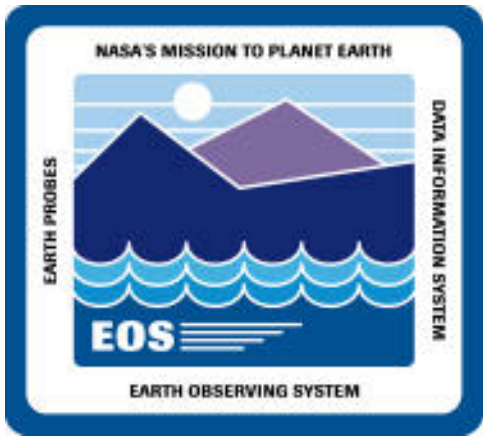

Software Configuration Management

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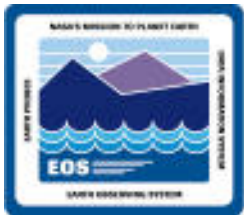
31 January 1996

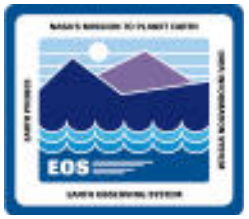
S/W Configuration Management Tools



Tools

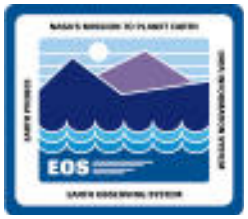
- ClearCase
  - Provides Versioning
  - Provides Controlled non-impact area for developer to work and test in
  - Provides Labeling / Priority identification
  - Repeatability
  - Provides “Audit” of Build by producing Configuration Record
  - Locking to identify and protect “Baselines”
  - Modular builds are accomplished by directory / Make file structure
- DDTS
  - Metrics and Reporting
  - Orderly state transitions from entry to closed to track progress
  - Priority, identification
  - WEB Interface to DDTS http:/newsroom.gsfc.nasa.gov/sit/ddts/ddts.html
- WEB Software Turnover Form automates Turnover and provides consistent reporting

Proposed Software Update Process



- Problem is identified and entered in DDTS via WEB interface
- Problem is evaluated, traced to Ir1 custom code, and assigned a priority
- Developer corrects anomaly, unit tests, and completes Software Turnover Form
- CM maintains the pre-build and reports awaiting code / NCR / Priority
- Test and sustaining engineering evaluate and schedules the delivery- Immediate, Next-Release, Next-Major-Release
- CM merges code and performs patch, modular or full builds then notifies of availability
- Test Verifies
- COTS software is controlled via Sustaining Engineering

Proposed Software Update Process (cont.)



- CM packages appropriate patch or release
- Patch / build registered in an EDF database
- Tar files contain modular building blocks
- VDD updated
- CCR documents the release
- Distribution files are copied to an EDF host for down load to the sites
- DAAC M&O staff down loads and installs
- Correction is tested and verified
- NCR is closed
- The new upgrade with original problem is announced on the Ir1 bulletin board (newsgroup)
- Notification is sent to M&O at each site